

WHAT IS CLAIMED IS:

1. A method of providing a verbal dialog interface for a caller to an automated self-service "how to use" (HTU) call system, comprising the steps of:
  - 5       grouping services/products into categories;  
       associating one or more HTU topics with each service/product;  
       storing at least one HTU dialog module for each topic, such that the dialog module can be played as a  
10       voice message of HTU instructions to the caller;  
       wherein some topics have more two or more dialog modules, depending on the length of the instructions;  
       during a call from a caller, prompting the caller to name or describe a service/product or to ask for a list  
15       of services/products;  
       in response to the prompting step, recognizing the caller's response such that unsupported services/products are recognized and an appropriate message is played;  
       in response to the prompting step, if the caller  
20       asks for a list of services, providing a spoken list of categories;  
       in response to either the preceding prompting or providing step, recognizing the caller's response, and determining if the caller's response is to be  
25       disambiguated;  
       disambiguating the response by determining if the response corresponds to a category having more than one service/product, and if so, providing a list of services/products within that category, prompting the  
30       caller for a response, and recognizing the caller's response;

based on one or more of the caller's responses,  
recognizing the caller's selected service/product;

providing the caller with a list of topics  
associated with the selected service/product and

5 recognizing the caller's selected topic; and

providing the instructions in at least one HTU  
dialog module associated with the selected topic, such  
that if the selected topic has more than one associated  
dialog module, the caller may request to have any

10 selected HTU dialog module repeated;

wherein each of the above the prompting and  
providing steps are part of a unique dialog module  
associated with that step, such that each dialog module  
has at least one timeout process and at least one retry

15 process.

2. A method of providing a verbal dialog interface for a caller to an automated self-service "how to use" (HTU) call system, comprising the steps of:

grouping services/products into categories;

5 associating one or more HTU topics with each service/product;

storing at least one HTU dialog module for each topic, such that the dialog module can be played as a voice message of HTU instructions to the caller;

10 wherein some topics have more two or more dialog modules, depending on the length of the instructions;

during a call from a caller, prompting the caller to name or describe a service/product or to ask for a list of services/products;

15 in response to the prompting step, if the caller asks for a list of services, providing a spoken list of categories;

in response to either the preceding prompting or providing step, recognizing the caller's response, and  
20 determining if the caller's response is to be disambiguated;

disambiguating the response by determining if the response corresponds to a category having more than one service/product, and if so, providing a list of  
25 services/products within that category, prompting the caller for a response, and recognizing the caller's response;

based on one or more of the caller's responses, recognizing the caller's selected service/product;

providing the caller with a list of topics associated with the selected service/product and recognizing the caller's selected topic; and

providing the instructions in at least one HTU  
5 dialog module associated with the selected topic, such that if the selected topic has more than one associated dialog module, the caller may request to have any selected HTU dialog module repeated.

10 3. The method of Claim 2, wherein the step of prompting the caller to name or describe a service or product is preceded by a prompt for the caller's phone number.

15 4. The method of Claim 2, wherein the dialog interface is for a telephone call system.

5. The method of Claim 2, wherein the recognizing steps are performed using natural language speech  
20 recognition techniques.

6. The method of Claim 2, wherein the prompting and providing steps include at least one timeout process.

25 7. The method of Claim 2, wherein the prompting and providing steps include at least one retry process.

8. The method of Claim 2, wherein in response to the step of prompting the caller to name or describe a service/product, recognizing the caller's response such that unsupported topics are also recognized and an  
5 appropriate message is played.

9. The method of Claim 2, wherein the step of providing the caller with a list of topics is performed by listing the topics in order of frequency.  
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10. The method of Claim 2, wherein the selected service is a pricing service, and of ensuring the caller's phone number is stored.

15 11. The method of Claim 2, further comprising the step of prompting the caller for a survey response, after the step of providing the instructions.

12. The method of Claim 2, wherein the prompting  
20 and providing steps include means for recognizing a spoken request for help, and of providing help information corresponding to the prompting or providing step.

13. A system for providing a verbal dialog interface for a caller to an automated self-service "how to use" (HTU) call system, comprising:

5 a database for storing at least the following interactive dialog modules and processes:

a Get Service Name module for prompting the caller to name or describe a service/product or to ask for a list of services/products, and for recognizing the caller's response;

10 a Get Category Name module for providing a list of service/product categories in response to the preceding step, and for recognizing the caller's selection from the list of categories;

15 a Need Disambiguation decision process for determining whether the caller has responded with a category having more than one associated service/product;

a Disambiguation process for providing a list of services/products, and for recognizing the caller's spoken selection from the list;

20 a Get Information process for providing the caller with a list of topics associated with a selected service/product, and for recognizing the caller's selected topic;

25 Information modules for providing the caller with verbal instructions associated with the selected topic;

wherein at least one topic has more than one associated Information module, based on the length of the instructions;

30 at least one What Next module, operable each Information module, for prompting the caller to ask for a

repeat of the instructions or to command a stop, and for recognizing the caller's response; and

an interactive voice recognition system for performing the above prompting, providing, and  
5 recognizing steps.

14. The system of Claim 13, further comprising at least one Survey module, operable to follow a What Next module, for prompting the caller to speak a response to a  
10 survey question, and for recognizing the caller's response.

15. The system of Claim 13, wherein each module contains at least one timeout process.  
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16. The system of Claim 13, wherein each module contains at least one retry process.

17. The system of Claim 13, wherein each module is  
20 programmed to recognize the caller's spoken request for help, and to provide verbal help information corresponding to that module.

18. The system of Claim 13, wherein the list of  
25 topics is presented in order of frequency.

19. The system of Claim 13, further comprising an Unsupported Service module for recognizing whether the caller has spoken an unsupported service, and for  
30 providing an appropriate verbal message.

20. The system of Claim 13, further comprising a Pricing module for recognizing the caller's request for pricing, and for transferring the caller to a source of pricing information.